

REMARKS

The Final Office Action mailed August 16, 2005, has been received and reviewed. Claims 35 through 38 and 41 through 58 are currently pending in the application. Claims 38 and 47 through 58 stand rejected. Claims 35 through 37 and 41 through 46 have been withdrawn. Applicant respectfully requests reconsideration of the application based upon the following remarks.

Information Disclosure Statement

Applicant notes the filing of an Information Disclosure Statement herein on December 23, 2004, which was received by the USPTO on December 27, 2004, and notes that a copy of the PTO-1449 was not returned with the outstanding Office Action. Applicant respectfully requests that the information cited on the PTO-1449 (which is the same as that of record to that date in the parent application hereto) be made of record herein. For the Examiner's convenience, Applicant encloses a copy of the previously-submitted PTO-1449 and a copy of the date-stamped postcard recognizing the filing of the PTO-1449 with the USPTO.

35 U.S.C. § 102 Anticipation Rejections

Anticipation Rejection Based on U.S. Patent No. 5,663,608 to Jones et al.

Claims 47, 48, 50 through 52, 54 through 56 and 58 stand rejected under 35 U.S.C. § 102(b) as being anticipated by Jones et al. (U.S. Patent No. 5,663,608). Applicant respectfully traverses this rejection, as hereinafter set forth.

A reference cannot anticipate a claim if that reference does not teach or suggest *all* of the recitations of the claim because "a claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference." *Verdegaal Brothers v. Union Oil Co. of California*, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987).

Jones et al. does not teach or suggest, either expressly or inherently, all of the recitations of independent Claims 47, 51, and 55; consequently, Jones et al. does not anticipate Claims 47, 48, 50 through 52, 54 through 56, and 58. In particular, Jones et al. at least fails to teach or suggest conductor structures as recited in independent Claims 47, 51, and 55. The failure of

Jones et al. to anticipate the independent claims also precludes an anticipation rejection of dependent Claims 48, 50, 52, 54, 56, and 58.

An anticipatory reference must show the identical invention in as complete detail as recited in the claim that it allegedly anticipates. *See, Richardson v. Suzuki Motor Co.*, 9 USPQ2d 1913, 1920 (Fed. Cir. 1989). Independent Claim 47 recites, in part, “the conductor including a first part and a second part, the first part comprising a first conductive material, the second part comprising a second conductive material, the *first part being wrapped around the second part*” (emphasis added). Jones et al. fails to teach or suggest a conductor that includes a first part wrapped around a second part. Therefore Jones et al. does not anticipate Claim 47 because it does not teach or suggest the identical invention to that recited by Claim 47.

The Action suggests that Jones et al. teaches a first conductive material (Cr) wrapped around a second part, citing column 17, lines 29-33, which states: “FIG. 26 is a sectional elevation view of a field emitter structure 410 according to another embodiment of the invention. This structure includes an emitter plate member comprising glass substrate layer 412, main conductor layer 414 (e.g., of Cr-Cu-Cr), resistor layer 416...” This passage - the only teaching apparently relied upon to anticipate the portion of Claim 47 in issue - does not teach or suggest that a chromium material is *wrapped* around a second part as alleged by the Action. *See, Action* at p. 2. The recitation “(e.g., of Cr-Cu-Cr)” does **not** teach or suggest “the first part being wrapped around the second part” as recited in Claim 47. Therefore, Jones et al. cannot anticipate Claim 47 because it does not teach or describe all of the recitations of Claim 47. *See, Verdegaaal Brothers v. Union Oil Co. of California*, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987).

At most, Jones et al. discloses the formation of Cr-Cu-Cr-Al *layers* in the preparation of a conductive line layer. *See, Jones et al.* at col. 15, lines 4-6 and col. 24, lines 12-14. The Action admits that “Jones disclose[s] that the conductor comprises three layers where AL or copper layer is covered both sides by chromium layer having structure of Cr-Al/Cu- Cr.” *See, Action* at p. 4, *sic.* (emphasis added). The allegation that covering “both sides” – implying two sides – of a part is the equivalent of “being wrapped around” a part is nonsensical. ‘Layering’ and ‘wrapping’ are not equivalent. The formation of Cr-Cu-Cr-Al layers does not anticipate a conductor as recited in Claim 47 having “the first part being wrapped around the second part.”

The failure of Jones et al. to teach or suggest an identical structure precludes the anticipation rejection of Claim 47. Applicant therefore respectfully requests the withdrawal of the 35 U.S.C. § 102(b) rejection of Claim 47 in view of Jones et al.

Claims 48 and 50 depend from independent Claim 47. Because Claim 47 is not anticipated, Claims 48 and 50 are not anticipated because they include, by dependency, all of the recitations of Claim 47. However, Claims 48 and 50 are also independently allowable over the 35 U.S.C. § 102(b) rejection based on Jones et al.

Claim 48 recites “wherein the first conductive material comprises chromium.” Jones et al. does not teach or suggest a chromium material wrapped around a second part. Even if Jones et al. teaches a conductive layer including chromium, it does not describe a chromium material wrapped around a second part as recited, by dependency, in dependent Claim 48.

Claim 50 recites “wherein the second conductive material comprises copper.” Jones et al. does not teach or suggest a first material wrapped around a second material comprised of copper as recited by dependency in Claim 50. The anticipation rejection of dependent Claims 48 and 50 should be withdrawn because Jones et al. fails to describe, in as complete detail as recited in the claims, the circuits of Claims 48 and 50.

Independent Claim 51 also recites, in part, a conductor including two parts and “the first part being wrapped around the second part.” Jones et al. fails to teach or suggest such recitations as described with respect to Claim 47. The failure of Jones et al. to describe such recitations precludes an anticipation rejection based on Jones et al. The 35 U.S.C. § 102(b) anticipation rejection should be withdrawn.

Claims 52 and 54 depend from Claim 51. As dependent claims of a non-anticipated independent claim, Claims 52 and 54 are also not anticipated because they inherit all of the recitations of the non-anticipated independent claim. Furthermore, Claim 52 recites a first material that “comprises chromium” and Claim 54 recites a second material that “comprises copper.” Jones et al. fails to teach or suggest a chromium material wrapped around a second material or a first material wrapped around a copper material. Therefore, Jones et al. fails to anticipate Claims 52 and 54, respectively. The withdrawal of the anticipation rejection of Claims 52 and 54 is respectfully solicited.

Independent Claim 55 includes the recitations “the first conductive material being wrapped around the second conductive material and preventing the second conductive material from contacting the material comprising silicon” which are not taught or suggested by Jones et al. As previously explained with respect to Claims 47 and 51, Jones et al. fails to teach or suggest a “first conductive material being wrapped around the second conductive material.” The failure of Jones et al. to teach or suggest such a feature precludes the anticipation rejection of Claim 55. Furthermore, those passages Jones et al. cited by the Action in support of the anticipation rejection fail to teach or suggest a conductor wherein a wrapped material prevents “the second conductive material from contacting the material comprising silicon” as recited in Claim 55. The failure of Jones et al. to do so bars an anticipation rejection. Applicant therefore requests that the anticipation rejection with respect to Claim 55 be withdrawn.

Claims 56 and 58 depend from Claim 55, which is not anticipated. As dependent claims of a non-anticipated independent claim, Claims 56 and 58 are not anticipated because they inherit the recitations of the independent claim which is not anticipated. Furthermore, Claim 56 is not anticipated by Jones et al. because Jones et al. does not teach or suggest a first material that “comprises chromium” and that is wrapped around a second material. Similarly, Jones et al. fails to teach or suggest a first material wrapped around a second material comprising “copper” as recited in Claim 58. The lack of such teachings by Jones et al. precludes an anticipation rejection of Claims 56 and 58. Applicant respectfully requests the withdrawal of the 35 U.S.C. § 102(b) rejections of dependent Claims 56 and 58.

For at least the foregoing reasons, Claims 47, 48, 50 through 52, 54 through 56, and 58 are not anticipated by Jones et al. Applicant respectfully requests the withdrawal of the 35 U.S.C. § 102(b) anticipation rejections of these claims in light of the failure of Jones et al. to teach or suggest all of the recitations of the rejected claims. *See, Verdegaal Brothers v. Union Oil Co. of California*, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987).

Anticipation Rejection Based on U.S. Patent No. 6,657,376 to Raina et al.

Claims 38, 47 through 49, 51 through 53, and 55 through 57 stand rejected under 35 U.S.C. § 102(e) as being anticipated by Raina et al. (U.S. Patent No. 6,657,376). Applicant respectfully traverses this rejection, as hereinafter set forth.

Rejected Claims 38, 47, 51, and 55 are independent claims. Claim 38 includes the recitations “the conductor including a first part and a second part, the first part comprising chromium, the second part comprising aluminum, the first part being wrapped around the second part.” Although each of Claims 47 and 51 are independently unique, they each include recitations similar to those of Claim 38, namely, the recitations “the first part being wrapped around the second part.” Claim 55 also includes similar recitations, in particular “the first conductive material being wrapped around the second conductive material and preventing the second conductive material from contacting the material comprising silicon.”

In support of the 35 U.S.C. § 102(e) anticipation rejection of Claims 38, 47, 51, and 55, the Action alleges that “Raina et al. disclose an integrated circuit...the first part being wrapped around the second part since both sides of the second part is [*sic*] covered by chromium layer which is the first part.” *See, Action* at p. 3 (emphasis added). The Action provides no citation to that portion of Raina et al. upon which it relies. Further, the Action indicates that “both Raina and Jones disclose that the conductor comprises three layers where AL or copper layer is covered both sides by chromium layer having structure of Cr-Al/Cu- Cr.” *See, Action* at p. 4 *sic* (emphasis added).

Raina et al. does **not** support the 35 U.S.C. § 102(e) anticipation rejection of independent Claims 38, 47, 51, and 55. Raina et al. teaches certain aspects of electron emission devices and at least some of those devices include “cathode conductive layers 56” which are generally described at column 5, lines 12-22. In particular, Raina et al. states:

A cathode conductive layer 56 is formed over insulative layer 54, and in the shown preferred embodiments is on insulative layer 54. Preferably, cathode conductive layer 56 comprises one or both of chromium and aluminum. More preferably, cathode layer 56 comprises three sub-layers, with the sub-layers constituting an aluminum-containing layer between two chromium-containing layers. The chromium and/or aluminum of cathode

conductive layer 56 can be formed by, for example, plasma vapor deposition sputtering. Conductive layer 56 is preferably patterned to form a series of parallel columns. *Raina et al.* at col. 5, lines 12-22.

Nowhere in the cited passage does Raina et al. teach “a first part being wrapped around a second part” or a “first conductive material being wrapped around the second conductive material” as recited in the rejected claims. Instead, the “cathode conductive layer 56” of Raina et al. “comprises three sub-layers, with the sub-layers constituting an aluminum-containing layer between two chromium-containing layers.” *Id.* A conductive layer comprising three sub-layers is not identical to a material being wrapped around another material.

An anticipation rejection is only proper if the cited reference teaches or suggests all of the claim recitations in the same detail as recited in the claims. *See, Verdegaaal Brothers v. Union Oil Co. of California*, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987). Raina et al. fails to teach or suggest the conductors comprising “a first part being wrapped around a second part” or a “first conductive material being wrapped around the second conductive material” as recited in the rejected claims. The failure of Raina et al. to teach such recitations precludes an anticipation rejection under 35 U.S.C. § 102(e) of independent Claims 38, 47, 51, and 55. *See, Id.*

Claims 48, 49, 52, 53, 56, and 57 depend from the independent claims. Since none of the independent claims are anticipated by Raina et al., all of the dependent claims which depend therefrom are also not anticipated by Raina et al. because they each inherit the recitations of the independent claim from which they depend. As such each of Claims 48, 49, 52, 53, 56, and 57 are not anticipated.

For at least the foregoing reasons, Applicant respectfully requests that the anticipation rejection of Claims 38, 47 through 49, 51 through 53, and 55 through 57 under 35 U.S.C. § 102(e) based upon Raina et al. be withdrawn.

CONCLUSION

Claims 38 and 47 through 58 are believed to be in condition for allowance, and an early notice thereof is respectfully solicited. Should the Examiner determine that additional issues remain which might be resolved by a telephone conference, he is respectfully invited to contact Applicant's undersigned attorney.

Respectfully submitted,



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Document in ProLaw



Multilayer Conductor Structure for Use in Field

Title **Emission Display**

Inventor **Derraa** Applicant

Serial/Patent # **10/671,332** 1-Inventor

The following have been received by the US Patent and Trademark Office on the date stamped hereon:

☐ Express Mail Label No. ☒ Deposit Account Authorization # **\$180**

☒ Certificate of Mailing - 37 CFR 1.8(a)

☐ Applicant Claims Small Entity Status ☒ Copy of/Response to: *Notice to File Missing Parts*

☐ Provisional Application Cover Sheet ☐ Preliminary Amendment

☐ New Application (Design) ☒ EDS, PTO-1449, and publications (Supp.)

☐ Sequence Listing ☐ CD-ROM ☐ Disc (CRF) ☐ Paper

Specification - Total Pages **10** Petition for **1** month extension of time

Formal Drawings - Total Sheets **2** Response to Office Action / Restriction Req.

☐ CPA application ☐ RCE application ☐ Notice of Appeal

☐ Oath of Declaration: **newly executed** ☐ Appellant's Brief (triplicate) ☐ Reply Brief

unsigned, **copy** from priority case ☐ Issue Fee + **soft copies** / ☐ Maintenance Fee

☐ Assignment and Recordation Form

☐ Application Data Sheet (Initial Information Data Sheet)

☐ Continuation ☐ Divisional ☐ Continuation-in-Part of App No. _____

☐ Other _____

☐ Other _____

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